

# LOS ANGELES FIRE DEPARTMENT CHIEF OFFICERS ASSOCIATION

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April 19, 2013

Board of Fire Commissioners  
Los Angeles Fire Department  
200 North Main Street, 18<sup>th</sup> Floor  
Los Angeles, CA 90012

RE: AMBULANCE AUGMENTATION STAFFING RECONFIGURATION

Dear Board of Fire Commissioners:

## SUMMARY

In 2011, due to fiscal restraints, and in order to eliminate rotating resource closures, the Department permanently closed 4 Basic Life Support (BLS) ambulances (3% of 127 ambulances), 18 fire resources (11.7% of 149 resources), 3 command offices (15.8% of 19 resources), and 3 HAZ MAT Squads (75% of 4 resources). Now, citing a lack of funding and an increase in demand for service, the Fire Chief proposes to reduce staffing on slightly more than half of all LAFD Light Force Companies (22 of 42) in order to add 11 BLS ambulances.

The Chief's hypothesis, that adding BLS ambulance resources by cutting staffing from LAFD Light Force Companies will decrease response times and improve coverage, demonstrates a fundamental misunderstanding regarding the LAFD service delivery model.

There are three components to the LAFD service delivery model; coverage, capacity, and deployment quality (resource strength) that must be balanced to ensure optimum service delivery. The Fire Chief's plan would optimize coverage by reducing capacity and quality. The Department currently has 256 resources that can be dispatched as a first responder to a medical emergency. It only has 132 resources that can handle a fire. The Department needs additional ambulances, but not by reducing its ability to handle fire emergencies.

## RECOMMENDATION

Los Angeles Fire Department Chief Officers recommend that the Fire Chief's Ambulance Augmentation Staffing Reconfiguration Plan, slated for implementation on

May 5, 2013, be delayed until the Department can submit a staff report that analyzes the plan's full impact on coverage, capacity, and deployment quality.

## FINDINGS

The Department's response system utilizes four basic apparatus types, ALS (advanced life support) ambulances, BLS (basic life support) ambulances, engine companies (pumpers), and light forces (an aerial ladder truck married to a pumper apparatus). The chart below summarizes the Department's deployment prior to cuts that were made in 2009.

Chart #1

Type of Resource	Units Deployed	BLS 1st Responder	ALS Capable	Transport Capable	Fire Hose / Water Tank	Aerial / Ladders / Jaws of Life
BLS Rescue Ambulance	38	38		38		
ALS Rescue Ambulance	89	89	89	89		
Engine Company	101	101	51		101	
Light Force	48	48	10		48	48
Truck	1	1				1
<b>Totals</b>	<b>277</b>	<b>277</b>	<b>150</b>	<b>127</b>	<b>149</b>	<b>49</b>

The LAFD deployment philosophy is to provide the right resource(s) based upon incident need. In 2011, there were 397,232 calls for service, with 333,333 calls being requests for medical help. The Department dispatched 703,776 resources to those 333,333 calls for medical help. Approximately one half of the resources dispatched to medical calls were Fire resources. The reason that Fire resources are dispatched so frequently to medical emergencies varies, but includes:

- All LAFD resources are trained Emergency Medical Technicians that can initiate medical care
- One or more Fire resources preceded the ambulance because they were closer to the incident
- One or more Fire resources augmented the ambulance for staffing based on expected incident needs
- The Fire resource provides the ALS component for the emergency
- Fire resources provide command oversight for larger, complex incidents

Chart #2 summarizes changes to the Department's deployment following cuts made in 2009. These are the resources available today.

Chart #2

Type of Resource	Units Deployed	BLS 1st Responder	ALS Capable	Transport Capable	Fire Hose / Water Tank	Aerial / Ladders / Jaws of Life
BLS Rescue Ambulance	34	34		34		
ALS Rescue Ambulance	89	89	89	89		
Engine Company	91	91	51		91	
Light Force	41	41	21		41	41
Truck	1	1				1
<b>Totals</b>	<b>256</b>	<b>256</b>	<b>161</b>	<b>123</b>	<b>132</b>	<b>42</b>
<b>Change</b>	<b>-7.6%</b>	<b>-7.6%</b>	<b>7.3%</b>	<b>-3.1%</b>	<b>-11.4%</b>	<b>-14.3%</b>

Note that ALS capable resources actually increased when deployment cuts were made in 2009 as paramedics were added to many Fire resources.

Chart #3 shows how the Fire Chief's proposal would modify the Department's existing deployment, and contrasts it against the pre-cut deployment depicted in Chart #1.

Chart #3

Type of Resource	Units Deployed	BLS 1st Responder	ALS Capable	Transport Capable	Fire Hose / Water Tank	Aerial / Ladders / Jaws of Life
BLS Rescue Ambulance	45	45		45		
ALS Rescue Ambulance	89	89	89	89		
Engine Company	91	91	51		91	
Light Force	41	41	21		41	41
Truck	1	1				1
<b>Totals</b>	<b>267</b>	<b>267</b>	<b>161</b>	<b>134</b>	<b>132</b>	<b>42</b>
<b>Change</b>	<b>-3.6%</b>	<b>-3.6%</b>	<b>7.3%</b>	<b>5.5%</b>	<b>-11.4%</b>	<b>-14.3%</b>

The LAFD utilizes an integrated service delivery model that provides coverage, capacity, and resource quality. Each component is discussed below.

#### Coverage

The length of time required to get the first resource to an incident is critical. In order to minimize travel time to emergencies, the Department operates from 106 fire stations that are geographically dispersed throughout the city. If there was never more than one

emergency at one time in each station's district, and if each emergency could be handled by one resource, then the Department would only need 106 rescue ambulances and 106 fire resources.

Coverage is impacted by district size, traffic, road conditions, population density, building size, building height, geography, time of day, and weather. Coverage is also impacted by the time it takes to receive and process a call for service and the time it takes to prepare for response (turnout time).

#### Capacity

Capacity measures the Department's ability to deal with impacts to coverage. As soon as a resource is dispatched to handle an emergency, that resource is no longer available. Should another emergency occur in that same district, a resource from an adjoining district is dispatched to cover the second incident. Simultaneous emergencies are problematic. The response time to the second emergency takes longer because the second resource must travel further to the incident. As demand for service increases, districts without coverage increase.

To counter capacity issues, the Department strategically places more than one resource within certain districts. That way, a second resource is available to handle simultaneous incidents. Fire Station 9, for example, has one truck, two engines, and three rescue ambulances. Prior to cutting resources, the Department had 48 districts with more than one fire resource assigned and 29 districts with more than one ambulance assigned. Now the Department only has 28 districts with more than one fire resource, and 24 with more than one ambulance.

Capacity is further impacted by spontaneous emergencies that require multiple resources. Complex spontaneous incidents such as multi-casualty incidents, structure fires, hazardous material incidents and brush fires are examples where capacity is challenged. Often, when spontaneous events occur, many districts have no resources left to respond to the next incident, requiring that the closest available resource be dispatched, requiring extended response times.

To offset reduced capacity, the Department recently lowered the number of resources that can be out of service CAV (conditionally available) or NAV (not available) due to non-emergency related activities, from 16 companies to 10 companies. Even with this change, during normal business hours, there frequently are districts that are dark (do not have any fire resource available). The same issue holds for ambulances, where the CAV / NAV threshold remains at 8 paramedic ambulances and 8 BLS ambulances. Ambulances are often tied up at the hospital waiting for a bed. During busy periods, many ambulances are NAV at the hospital, unavailable for response.

#### Deployment Quality (resource strength)

The National Fire Protection Agency (NFPA) develops, publishes, and disseminates more than 300 consensus codes and standards intended to minimize the possibility and effects of fire and other risks. Virtually every building, process, service, design, and installation in society today is affected by NFPA documents.

Resource staffing is addressed in NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments. The 2010 edition of NFPA 1710 states:

5.2.3.2 Fire companies whose primary functions are to perform the variety of services associated with truck work, such as forcible entry, ventilation, search and rescue, aerial operations for water delivery and rescue, utility control, illumination, overhaul, and salvage work, shall be known as ladder or truck companies.

5.2.3.2.1 These companies shall be staffed with a minimum of four on-duty personnel.

5.2.3.2.2 In jurisdictions with tactical hazards, high-hazard occupancies, high incident frequencies, geographical restrictions, or other pertinent factors as identified by the AHJ (authority having jurisdiction), these companies shall be staffed with a minimum of five or six on-duty personnel.

Los Angeles is the second largest city within the United States and clearly meets the NFPA recommendation set forth in 5.2.3.2.2 above. The LAFD deploys "truck" companies as part of a "Light Force". A Light Force is provided an aerial apparatus, a pumper apparatus, and 6 personnel who can initiate life saving intervention at medical emergencies, perform either truck work or engine work, depending on incident needs.

Since 2011 when LAFD resources were cut, resource quality or strength has negatively impacted capacity. As staffing levels decrease the Department compensates by adding resources to an incident dispatch in order to get the necessary personnel to the scene. For example, to compensate for Command units that had an Emergency Incident Technician (EIT) position eliminated, an additional fire company is added to all fire dispatches. This additional resource provides the personnel required to perform the duties formerly performed by the EIT. This exasperates resource capacity at precisely the moment when capacity is needed most.

Deployment Quality also impacts teamwork. The Fire Chief's proposal would compensate for reduced Light Force staffing by adding an Ambulance to non-EMS dispatches in order to provide required staffing. The random pairing of ambulances to fire companies is problematic because the officer in charge must anticipate fire behavior, direct his / her own crew, and direct the ambulance crew's actions. Often, the Captain II who commands a Light Force is required, by policy, to take command of the incident, or to command a division within the incident. This increases operational complexity and increases the likelihood of catastrophic failure. If Firefighter staffing on Light Force companies is reduced, then pairing unfamiliar resources will become commonplace, reducing teamwork and decreasing accountability.

Team size is critical. Imagine the Dodgers being forced to play without one player, the center fielder. The Dodgers would not win many games. The same analysis carries over to short staffing LAFD Light Forces.

#### Issues Needing Clarification

The Department should clarify the following issues prior to implementation.

- ✓ Will EMS supervision increase proportionately to the resources added?
- ✓ Will probationary firefighters be assigned to short-staffed light force companies?
- ✓ Why double stack BLS ambulances when BLS ambulance coverage is limited.
- ✓ Are dispatch algorithms based on the number of apparatus dispatched or the number of personnel assigned to the apparatus?
- ✓ Will the new deployment model require modification to the Department's Standard Operating Procedures prior to implementation? Will all members be trained prior to implementation?

#### Infrastructure

Apparatus for the Fire Chief's proposal were not provided for in the budget. This means that ambulances held past their life cycle will be utilized to expand the ambulance fleet. This will stress the Department's Maintenance Division. Additionally, required equipment has not been budgeted or purchased. Without spare apparatus and equipment, when apparatus breaks, crews may not be able to perform their jobs.

#### Measurements

Response performance is new to the Department. At first, the Department struggled with accurate data. Now, the Department claims that the data is good. The Chief Officer's Association recommends that, prior to any Deployment change, that the Department publish their expectations for deployment impacts before implementing the change.

Any LAFD unit arriving first on scene at a medical incident is trained to initiate life saving measures. However, ambulances do not have any equipment needed to initiate fire suppression activities, and therefore should not be included as the first unit to arrive at non-EMS incidents.

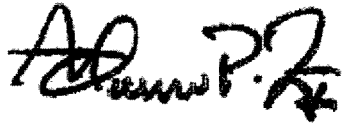
The Department needs to measure more than the time for the first unit to arrive on-scene. The Department should measure the time required for all initial units assigned to arrive for both medical and non-medical incidents. This would provide an indication whether the Department has sufficient capacity, by resource category, within the City's different communities.

The Department should look at more than "overall" data. Individual district impacts must be analyzed.

## CONCLUSION

The LAFD needs additional ambulances. Cannibalizing existing resources to obtain ambulance staffing will increase deployment complexity and severely impact LAFD's response to emergencies. In order to preserve public and firefighter safety, the Fire Chief should look for alternatives to this staffing plan. The plan should be memorialized in writing prior to implementation so that plan impacts are transparent both to the public we serve and our members, both civilian and sworn, who provide the service we deliver.

Very truly yours,

A handwritten signature in black ink, appearing to read "Andrew P. Fox". The signature is stylized with a large, looped "A" and a prominent "F".

ANDREW P. FOX  
President